



Department/School: School of Electrical Engineering and Computer Science

13 March 2024

CURRICULUM VITAE

NAME:

LETHBRIDGE, Timothy, P.Eng, I.S.P., FCIPS Professor

DEGREES AND CREDENTIALS:

Degrees:

1994 PhD Computer Science, University of Ottawa, Ontario, Canada
1987 Masters of Computer Science Computer Science, University of New Brunswick, New Brunswick, Canada
1985 Bachelor of Computer Science Computer Science, University of New Brunswick, New Brunswick, Canada

Credentials:

Professional Engineer, Professional Engineers Ontario
Information Systems Professional, Canadian Information Processing Society

EMPLOYMENT HISTORY:

Academic Work Experience:

2005 – Professor, Professor, Electrical Engineering and Computer Science, University of Ottawa, Ontario, Canada
2010 – 2023 Vice-Dean, Governance, Professor, Faculty of Engineering, University of Ottawa, Ontario, Canada
2005 – 2005 Acting Vice Dean (Academic), Professor, Faculty of Engineering, University of Ottawa, Ontario, Canada
2001 – 2005 Associate Professor, Associate Professor, School of Information Technology and Engineering, University of Ottawa, Ontario, Canada
1994 – 2001 Assistant Professor, Assistant Professor, School of Information Technology and Engineering, University of Ottawa, Ontario, Canada
1990 – 1994 Part Time Professor, Lecturer, Computer Science, University of Ottawa, Ontario, Canada
1986 – 1986 Part Time Professor, Lecturer, Computer Science, University of New Brunswick, New Brunswick, Canada

Non-academic Work Experience:

1987 – 1989 Member of Scientific Staff, Bell-Northern Research (Canada)
1982 – 1985 Programmer, Government of New Brunswick, New Brunswick, Canada

HONOURS:

- 2016 IEEE Computer Society TCSE Outstanding Educator Award, In recognition of his outstanding contributions to software engineering education through leadership roles in curriculum development, his dissemination of software engineering education ideas through conferences and committees, his chairing of the CSEET steering committee, and his advancing of software engineering education through accreditation processes and curriculum design, IEEE
- 2015 Best paper Award - SDL Forum 2015, For: *Braun, E., Amyot, D., Lethbridge, TC. "Generating Software Documentation in Use Case Maps from Filtered Execution Traces", SDL Forum, United Kingdom
- 2010 Cascon High Impact Paper Award for one of best 14 out of 425 papers published in the first decade of Cascon, for Singer, J., Lethbridge, T.C., Vinson, N, and Anquetil, N (1997) "An Examination of Software Engineering Work Practices, IBM Cascon, Canada
- 2010 Gary Hadford Professional Achievement Award, "[to] CIPS members ... recognized by their peers for their integrity, high degree of competence, and outstanding achievements in fields related to information technology, Canadian Information Processing Society, Canada
- 2009 WCRE Award for Most Influential Paper from 10 years before, for Anquetil, N., and Lethbridge, T.C. (1999), "Experiments with Clustering as a Software Remodularization Method", Working Conference on Reverse Engineering, pp 235-255, Working Conference on Reverse Engineering, France
- 2006 Outstanding Contribution Award, IEEE, For contributions to SE2004, IEEE, United States
- 2004 The Mather Premium, Prize given once a year for a paper published in an IEE Journal on computing. For J11. Anquetil, N., and Lethbridge, T.C. (2003), "A Comparative Study of Clustering Algorithms and Abstract Representations for Software Remodularization", IEE Proceedings - Software, pp. 185-201, IEE, United Kingdom

SCHOLARLY and PROFESSIONAL ACTIVITIES:**Event Administration**

- 2005 – General Chair, Conference on Software Engineering Education and Training
- 2013 – 2015 General Chair, Models 2015: ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems

Editorial Activities

- 2015 – 2025 Member of Editorial Board, Software and Systems Modeling (Springer)

Journal Review Activities

- 2015 – Reviewer, Applied Computing and Informatics
- 2015 – Reviewer, Science of Computer Programming
- 2015 – Reviewer, International Journal of Parallel, Emergent and Distributed Systems
- 2011 – Reviewer, Empirical Software Engineering
- 2009 – Reviewer, Journal of Systems and Software
- 2009 – Reviewer, Information and Software Technology
- 2009 – Reviewer, IEEE Software
- 2009 – Reviewer, Software and Systems Modeling
- 2013 – 2013 Reviewer, ACM Transactions on Computing Education
- 2012 – 2013 Reviewer, IEEE Transactions on Education

- 2011 – 2011 Reviewer, Computer Science Education
 2011 – 2011 Reviewer, ACM transactions on Software Engineering and Methodology
 2010 – 2010 Reviewer, Enterprise Information Systems
 2010 – 2010 Reviewer, IEEE Transactions on Systems, Man and Cybernetics
 2009 – 2013 Reviewer, Communications of the ACM
 2009 – 2013 Reviewer, Journal of Software: Evolution and Process
 2009 – 2012 Reviewer, IEEE Computer
 2009 – 2012 Reviewer, IET Software
 2009 – 2012 Reviewer, Software Practice and Experience
 2009 – 2012 Reviewer, IEEE Transactions on Software Engineering

Conference Review Activities

- 2009 – Reviewer, Conference on Software Engineering and Training (CSEE&T)
 2009 – Reviewer, Models Education Symposium
 2009 – Reviewer, Cascon
 2011 – 2011 Reviewer, ICSE Education Track
 2009 – 2014 Reviewer, ACM/IEEE Conference on Model-Driven Engineering Languages and Systems (Models)
 2009 – 2010 Reviewer, International Conference on Program Comprehension
 2009 – 2009 Reviewer, Software Language Engineering

Organizational Review Activities

- 2015 – 2015 University of Manitoba (Academic), External Evaluator, Evaluated Graduate program. Included site visit
 2013 – 2013 University of Ontario Institute of Technology, Ontario, Canada, Academic External Evaluator, Evaluated Computer Science undergraduate program, according to provincial requirements. Included site visit
 2012 – 2012 Seneca College for Applied Arts and Technology, Ontario, Canada, Academic External Evaluator, Reviewed and evaluated Software Development academic program
 2005 – 2015 Canadian Information Processing Society (Not for Profit), Accreditation Visitor, Computer Science accreditation visits to St Mary's University, York University, University of Waterloo, Concordia University, Dalhousie University, Acadia University, University of Saskatchewan, University of Manitoba, Queens University

MEMBERSHIPS

Committee Memberships

- 2018 – Committee Member, *Vice Chair, Computer Science Accreditation Council*, Canadian Information Processing Society
 2018 – Committee Member, *Member of Board of Directors, CIPS National*, Canadian Information Processing Society
 2018 – Committee Member, *Board of Directors Member*, CIPS Ontario
 2008 – 2014 Chair, *Computer Science Accreditation Council*, Canadian Information Processing Society, Canada
 1989 – 1991 Committee Member, *Member of Board of Governors*, University of Ottawa, Ontario, Canada
 1985 – 1987 Committee Member, *Member of Board of Governors*, University of New Brunswick, New Brunswick, Canada
 1982 – 1986 Committee Member, *Member of Senate*, University of New Brunswick, New Brunswick, Canada

Other Memberships

2008 – 2025 P. Eng, Professional Engineers Ontario, Canada
 2006 – 2025 Certified Member and Fellow, Canadian Information Processing Society, Canada
 1996 – 2025 Senior Member, ACM, United States
 1989 – 2024 Senior Member, IEEE, United States

SUPERVISIONS:**Summary:****Completed**

Principal Supervisor 14 Doctorate
 11 Master's Thesis
 6 Master's non-Thesis
 3 Post-doctorate

Co-Supervisor 36 Bachelor's
 4 Doctorate
 6 Master's Thesis

In Progress

Principal Supervisor 2 Doctorate

Supervision detail:

Reyhaneh Kalantari (Doctorate), Electronic Business *User Experience in Modeling*, Principal Supervisor, September 2020 -

Lovepreet Singh (Master's non-Thesis), Computer Science *Safe Cloud-Based Java Code Execution in UmpleOnline*, Principal Supervisor, September 2021 - May 2022

Shuvankar Saha (Master's non-Thesis), Computer Science *User Experience Analysis of UmpleOnline with real users*, Principal Supervisor, May 2021 - December 2021

Frédéric Lafèche (Master's non-Thesis), Computer Science *Enhancement of External Technology for End-Users Working with Umple*, Principal Supervisor, January 2021 - September 2021

Emmanuel Ayeleso (Doctorate), Computer Science *Modeling for Big Data*, Principal Supervisor, January 2019 - December 2022

Abdulaziz Algablan (Doctorate), Computer Science *Mixsets: Combining Annotative and Compositional Approaches to Variability and Product Lines*, Principal Supervisor, September 2016 - December 2021

Luciane Telinski Wiedermann Agner (Post-doctorate), Computer Science *Use of Modeling Tools in Software Engineering Education*, Principal Supervisor, August 2016 - July 2017

Alvine Boaye Belle (Post-doctorate), Computer Science *Reconstructing DoDAF (Department of Defense Architecture Framework) compliant high level views from information systems*, Principal Supervisor, May 2016 - May 2018

Aliaa Alghamdi (Doctorate), PhD. in E-Business *Enterprise Architecture in Higher Education: Processes, Principles, Challenges, Success Factors and Agility*, Principal Supervisor, January 2016 - September 2020

Amid Zakariapour (Master's Thesis), Computer Science *Real-time Distributed Modeling in Umple*, Co-Supervisor, September 2015 - August 2017

Curtis Meerkerk (Bachelor's), UCOSP *Association Class Semantics (UCOSP Project)*, Co-Supervisor, September 2015 - December 2015

Adam Kereliuk (Bachelor's), UCOSP *Improvements to UmpleOnline (UCOSP Project)*, Co-Supervisor, September 2015 - December 2015

Matthew Fritze (Bachelor's), UCOSP *Improvements to Diagram Drawing in Umple (UCOSP Project)*, Co-Supervisor, September 2015 - December 2015

Aymen Ben Rkhis (Bachelor's), UCOSP *Code analysis improvements in Umple (UCOSP Project)*, Co-Supervisor, September 2015 - December 2015

Vivian Xinxin Kou (Bachelor's), UCOSP *Filtering to allow specification of submodels (UCOSP Project)*, Co-Supervisor, January 2015 - April 2015

Warren Marivel (Bachelor's), UCOSP *SCXML: Generation from Umple and importing to Umple (UCOSP Project)*, Co-Supervisor, January 2015 - April 2015

Kevin Brightwell (Bachelor's), UCOSP *Automatic conversion of AtlanZoo repositories to Umple (UCOSP Project)*, Co-Supervisor, January 2015 - April 2015

John Zweip (Bachelor's), UCOSP *Analysing data for umplification (UCOSP Project)*, Co-Supervisor, January 2015 - April 2015

Robert Weisman (Doctorate), PhD in E-Business *A Leadership Approach to Successful Digital Transformation Using Enterprise Architecture*, Principal Supervisor, September 2014 - December 2019

Nabil Maadarani (Bachelor's), UCOSP *Batch-Umplifying Open Source Code (UCOSP Project)*, Co-Supervisor, September 2014 - April 2015

Alexander Ringeri (Bachelor's), UCOSP *Improving state machine semantics in Umple (UCOSP Project)*, Co-Supervisor, September 2014 - December 2014

Mark Galloway (Bachelor's), UCOSP *Improving Papyrus integration for Umple (UCOSP Project)*, Co-Supervisor, September 2014 - December 2014

Karin Ng (Bachelor's), UCOSP *Improving GraphViz generation of Umple diagrams, including Entity-Relationship diagrams (UCOSP Project)*, Co-Supervisor, September 2014 - December 2014

Alexi Turcotte (Bachelor's), UCOSP *Adding association subsetting and specialization to Umple (UCOSP Project)*, Co-Supervisor, September 2014 - December 2014

Ellen Arteca (Bachelor's), UCOSP *Adding compositions to Umple (UCOSP Project)*, Co-Supervisor, September 2014 - December 2014

Chan Chun Kit (Bachelor's), Facebook Open Academy *Improvements to Umple's Ecore Generator (Facebook Open Academy / UCOSP Project)*, Co-Supervisor, January 2014 - May 2014

Charles Wang (Bachelor's), Facebook Open Academy *Improvements to UmpleOnline such as saving state and keyboard shortcuts (Facebook Open Academy / UCOSP Project)*, Co-Supervisor, January 2014 - May 2014

Eric Telmer (Bachelor's), Facebook Open Academy *Implementing Deep History and History in Umple State Machine Code Generation (Facebook Open Academy / UCOSP Project)*, Co-Supervisor, January 2014 - May 2014

Adriaan Cody Schuffelen (Bachelor's), Facebook Open Academy *Generating USE from Umple (Facebook Open Academy / UCOSP Project)*, Co-Supervisor, January 2014 - May 2014

Tyler McConnell (Bachelor's), Facebook Open Academy *Fixing various issues in Umple (UCOSP Project)*, Co-Supervisor, January 2014 - April 2014

Sultan Eid Almagthawi (Doctorate), Computer Science *Model-Driven Testing in Umple*, Principal Supervisor, September 2013 - April 2020

Adesina Opeyemi (Doctorate), Computer Science *Integrating Formal Methods With Model-Driven Engineering*, Co-Supervisor, September 2013 - July 2017

Fiodar Kazhamiaka (Bachelor's), UCOSP *Improving code generation in Umple, including passing through comments to generated code (UCOSP Project)*, Co-Supervisor, September 2013 - December 2013

Tianyuan Chu (Bachelor's), UCOSP *Ecore generator in Umple (UCOSP Project)*, Co-Supervisor, September 2013 - December 2013

Marc Antoine Gosselin-Lavigne (Bachelor's), UCOSP *Solving problems with Umple semantic analysis and code generation (UCOSP Project)*, Co-Supervisor, September 2013 - December 2013

Kenan Kigunda (Bachelor's), UCOSP *Dropbox Integration into UmpleOnline (UCOSP Project)*, Co-Supervisor, September 2013 - December 2013

Jean-Christophe Charbonneau (Bachelor's), UCOSP *Improvements to UmpleOnline such as allowing optional display of methods and attributes (UCOSP Project)*, Co-Supervisor, September 2013 - December 2013

Abdelzad, Vahdat (Doctorate), Electrical Engineering *Promoting Traits into Model-Driven Development*, Principal Supervisor, May 2013 - May 2017

Antonio Maria Pereira de Resende (Post-doctorate), Computer Science *Software Model Metrics*, Principal Supervisor, March 2013 - March 2014

Geoffrey Guest (Bachelor's), UCOSP *Improvements to the Umple Compiler*, Co-Supervisor, January 2013 - April 2013

Robin Jastrzebski (Bachelor's), UCOSP *Improving association semantics and adding keys to umple (UCOSP Project)*, Co-Supervisor, January 2013 - April 2013

Quinlan Jung (Bachelor's), UCOSP *Constraints in Umple (UCOSP Project)*, Co-Supervisor, January 2013 - April 2013

Blakely Quebec-Desloges (Bachelor's), UCOSP *Detecting naming conflicts when generating code (UCOSP Project)*, Co-Supervisor, January 2013 - April 2013

Thomas Morrison (Bachelor's), UCOSP *Sorted Associations in Umple (UCOSP Project)*, Co-Supervisor, September 2012 - December 2012

Russell Staughton (Bachelor's), UCOSP *Papyrus export for Umple (UCOSP Project)*, Co-Supervisor, September 2012 - December 2012

Christopher Hogan (Bachelor's), UCOSP *Adding constraints to Umple (UCOSP Project)*, Co-Supervisor, September 2012 - December 2012

Mahmoud Hussein Orabi (Doctorate), Computer Science *Facilitating the Representation of Composite Structure, Active objects, Code Generation, and Software Component Descriptions in the Umple Model-Oriented Programming Language*, Principal Supervisor, January 2012 - July 2017

Ahmed Orabi (Doctorate), Computer Science *Multi-Modal Technology for User Interface Analysis including Mental State Detection and Eye Tracking Analysis*, Principal Supervisor, January 2012 - July 2017

Aliaa Alghamdi (Master's Thesis), Systems Science *Extensions to Umple for Interconnected State Machines*, Co-Supervisor, January 2012 - January 2015

Jordan Johns (Bachelor's), UCOSP *Ensuring comments pass through to generated code, and enabling the declaration of abstract classes in Umple (UCOSP project)*, Co-Supervisor, January 2012 - April 2012

Sonya Adams (Bachelor's), UCOSP *Adding immutability to classes attributes and associations in Umple (UCOSP Project)*, Co-Supervisor, January 2012 - April 2012

Song Bae Choi (Bachelor's), UCOSP *Resolving issues related to synchronizing text and diagrams in UmpleOnline (UCOSP Project)*, Co-Supervisor, January 2012 - April 2012

Joel Hobson (Bachelor's), UCOSP *Developer debug capabilities for Umple (UCOSP Project)*, Co-Supervisor, September 2011 - December 2011

Joshua Horacek (Bachelor's), UCOSP *Improving feedback on syntax and semantic errors in Umple (UCOSP Project)*, Co-Supervisor, September 2011 - December 2011

Miguel Garzon (Doctorate), Computer Science *Umplification: Incremental reverse engineering from source code to model-oriented programs in Umple*, Principal Supervisor, September 2010 - July 2015

Sultan Eid Almagthawi (Master's Thesis), Computer Science *Generation of C++ From the Umple Model-Oriented Programming Technology*, Principal Supervisor, September 2010 - September 2013

Hamoud Aljamaan (Doctorate), Computer Science *Model-Oriented Tracing Language: Producing Execution Traces from Tracepoints Injected into Code Generated from UML Models*, Principal Supervisor, January 2010 - September 2015

Jenya Levin (Master's Thesis), Computer Science *System Generation for Time and Activity Management Product Lines*, Principal Supervisor, September 2008 - December 2009

Julian Solano (Master's Thesis), Systems Science *Exploring How Model Oriented Programming Can Be Extended to the User Interface Level*, Principal Supervisor, January 2008 - March 2010

Omar Bahy Badreddin (Doctorate), Computer Science *A Manifestation of Model-Code Duality: Facilitating the Representation of State Machines in the Umple Model-Oriented Programming Language*, Principal Supervisor, December 2007 - March 2012

Dusan Brestovansky (Master's Thesis), Computer Science *Exploring Textual Modeling Using the Umple Language*, Principal Supervisor, July 2007 - September 2008

Andrew Forward (Doctorate), Computer Science *The Convergence of Modeling and Programming: Facilitating the Representation of Attributes and Associations in the Umple Model-Oriented Programming Language*, Principal Supervisor, September 2006 - October 2010

Ali Fatolahi (Doctorate), Computer Science *An Abstract Meta-Model for Model Driven Development of Web Applications Targeting Multiple Platforms*, Co-Supervisor, May 2006 - August 2012

Mehrdad Nojournian (Master's Thesis), Computer Science *Document Engineering of Complex Software Specifications*, Principal Supervisor, October 2005 - June 2007

Hanna Farah (Master's Thesis), Electrical Engineering *Applying Cognitive Patterns to Support Software Tool Development*, Principal Supervisor, September 2005 - December 2006

Max Nozin (Master's Thesis), Computer Science *A Privacy Framework to Provide Users with Control, Accuracy and Audit*, Co-Supervisor, April 2004 - July 2005

Bo Zhao (Master's Thesis), Systems Science *An Enriched Web Services Client Architecture for Management and Sharing of Context*, Co-Supervisor, January 2004 - May 2005

Rana Khartabil (Master's Thesis), Computer Science *User-Centered Design and Evaluation of a Dynamic Biochemical Pathway Visualization Tool*, Co-Supervisor, January 2003 - April 2005

Eric Fu (Master's Thesis), Computer Science *Exploration and Visualization of Large Execution Traces*, Principal Supervisor, January 2003 - April 2005

Edna Braun (Doctorate), Computer Science *Reverse engineering behavioral models by filtering out utilities from execution traces*, Co-Supervisor, September 2002 - September 2013

Xuyen On (Master's Thesis), Computer Science *Interactive Web Charts for Visualizing Large Data Sets*, Co-Supervisor, September 2002 - March 2005

Andrew Forward (Master's Thesis), Computer Science *Software Documentation: Building and Maintaining Artefacts of Communication*, Principal Supervisor, September 2001 - October 2002

Adam Murray (Doctorate), Computer Science *Discourse Structure of Software Explanation: Snapshot Theory, Cognitive Patterns and Grounded Theory Methods*, Principal Supervisor, September 2000 - September 2006

Abdelwahab Hamou-Lhadj (Doctorate), Computer Science *Techniques to Simplify the Analysis of Execution Traces for Program Comprehension*, Principal Supervisor, January 2000 - October 2005

Huixiang Liu (Master's Thesis), Computer Science *Intelligent Search Techniques for Large Software Systems*, Principal Supervisor, January 2000 - November 2001

Iyad Zayour (Doctorate), Computer Science *Reverse Engineering: A Cognitive Approach, a Case Study and a Tool*, Principal Supervisor, January 1999 - March 2002

LiQun Wang (Master's Thesis), Systems Science *Animated Exploring of Huge Software Systems*, Principal Supervisor, September 1998 - January 2003

Mohammad Mtairek (Master's non-Thesis), Computer Science *Object-Oriented Abstractions of Non Object-Oriented Software*, Principal Supervisor, September 1998 - April 2002

Francisco Herrera (Master’s Thesis), Computer Science *A Usability Study of the "TkSee" Software Exploration Tool*, Principal Supervisor, September 1997 - September 1999

Lisa Borgia (Master’s non-Thesis), Computer Science *Performance Comparison of Memory-Mapped C++ Objects with a Commercial Database*, Principal Supervisor, September 1996 - December 1998

Priya Ramalingom (Master’s non-Thesis), Computer Science *Adding A Generic Debugger to a Source Code Exploration Environment*, Principal Supervisor, September 1995 - December 1997

Jelber Sayyad-Shirabad (Doctorate), Computer Science *Learning Usage Patterns to Assist Source Code Browsing*, Co-Supervisor, September 1994 - March 2003

COURSES:

Undergraduate Courses

CSI1013 Computer Science Concepts in Fortran University of New Brunswick, New Brunswick:
May, 1986 - June, 1986

CS2083 Interactive Programming in APL University of New Brunswick, New Brunswick:
June, 1986 - August, 1986

CSI2110 Data Structures:
January, 1996 - April, 1996

CSI2377 Smalltalk Programming Lab University of Ottawa, Ontario:
January, 1990 - April, 1990

CSI4111 Software Evolution and Re-Engineering University of Ottawa, Ontario:
January, 1993 - December, 1996

ELG/SEG/CSI2911 Professional Practice in Electrical Engineering and Computer Science University of Ottawa, Ontario:
January, 2010 - April, 2014

SEG2105 Introduction to Software Engineering University of Ottawa, Ontario:
January, 1991 - July, 2020

SEG3125 User Interface Analysis and Design University of Ottawa, Ontario:
May, 1995 - July, 2001

SEG4110 Advanced Software Design and Reengineering University of Ottawa, Ontario:
May, 1994 - December, 2015

SEG4910/SEG4911 Capstone Project in Software Engineering University of Ottawa, Ontario:
September, 2000 - April, 2023

Graduate Courses

CSI5122 Software Usability University of Ottawa, Ontario:
January, 1999 - April, 2021

LIFETIME FUNDING:

- Total amount of funding received \$2,686,348.00
As Principal Investigator \$2,220,998.00

EXTERNAL RESEARCH FUNDING:

Date(s)	Source	Type	Investigator	Amount
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Université d’Ottawa | University of Ottawa

Date(s)	Source	Type	Investigator	Amount
2022/4 - 2028/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Identifying and Overcoming Obstacles to Effective Software Modeling <u>Program:</u> NSERC Discovery Grant	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$120,000
2016/5 - 2018/5	Mitacs and KDM Analytics <u>Title:</u> Mitacs Accelerate: Reconstructing DoDAF (Department of Defense Architecture Framework) compliant high level views from information systems <u>Program:</u> Mitacs Accelerate	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator <u>Co-applicant:</u> Alvine Boaye-Belle	Funding Total: \$75,000 (\$75,000 received)
2016/4 - 2021/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Discovery Grant: Improving the Capabilities and Applicability of Umple <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$130,000 (\$130,000 received)
2011/9 - 2016/9	Ontario Research Fund, General Motors and IBM <u>Title:</u> ORF Grant - Model-Based Software Engineering <u>Program:</u> Model-Based Software Engineering	<u>Type:</u> Grant	<u>My Role:</u> Co-investigator <u>Principal Investigator:</u> Joanne Atlee	Funding Total: \$381,000 (\$381,000 received)
2011/4 - 2016/3	NSERC <u>Title:</u> Discovery Grant: Evaluating and improving the Umple model-oriented programming language <u>Program:</u>	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$145,000 (\$145,000 received)

Date(s)	Source	Type	Investigator	Amount
	Discovery Grants			
2009/5 - 2012/4	Ericsson and IBM and NSERC <u>Title:</u> CRD - Tracing in software engineering <u>Program:</u> CRD	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Co-investigator <u>Principal Investigator:</u> Michel Dagenais	Funding Total: \$79,350 (\$79,350 received)
2009/5 - 2009/8	Social Sciences and Humanities Research Council of Canada (SSHRC) <u>Title:</u> Factors influencing high school and university students' educational and career decisions in the field of information technology <u>Program:</u> Challenges and Opportunities of a Knowledge-based Economy	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Co-investigator	Funding Total: \$5,000
2007/1 - 2010/12	IBM Canada Ltd <u>Title:</u> CAS Fellowship <u>Program:</u> CAS Fellowships	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$120,000
2006/4 - 2011/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Improving the preciseness and usability of UML <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$139,000
2004/4 - 2006/3	IBM and NSERC <u>Title:</u> CSER: Applying Cognitive Patterns to Support Software Tool Development <u>Program:</u> CRD	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$100,000

Date(s)	Source	Type	Investigator	Amount
2003/4 - 2004/9	QNX <u>Title:</u> Analyzing Traces with SEAT <u>Program:</u> Research Grant	<u>Type:</u> Grant	<u>My Role:</u> Principal Investigator	Funding Total: \$42,000
2002/4 - 2006/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Discovery Grant: Visualization of Software <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$118,000
1999/4 - 2002/3	Mitel and NSERC <u>Title:</u> Consortium for Software Engineering Research <u>Program:</u> Consortium for Software Engineering Research	<u>Type:</u> Grant	<u>My Role:</u> Principal Investigator	Funding Total: \$540,000
1998/4 - 2002/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Discovery Grant: Analysis - level patterns in object-oriented software <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$46,200
1996/4 - 1999/3	Mitel and NSERC <u>Title:</u> Consortium for Software Engineering Research <u>Program:</u> Consortium for Software Engineering Research	<u>Type:</u> Grant	<u>My Role:</u> Principal Investigator	Funding Total: \$524,298
1995/5 -	MITEL Corporation (Kanata, ON)	<u>Type:</u>	<u>My Role:</u>	Funding Total:

Date(s)	Source	Type	Investigator	Amount
1996/4	<u>Title:</u> Knowledge Based reverse Engineering <u>Program:</u> Grant	Contract	Principal Investigator	\$60,000 (\$60,000 received)

INTERNAL RESEARCH FUNDING:

Date(s)	Source	Type	Investigator	Amount
2018/7 - 2020/6	University of Ottawa <u>Title:</u> Internal Stipend <u>Program:</u> Research Stipend 12K per year	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$24,000 (\$24,000 received)
2014/7 - 2017/6	University of Ottawa <u>Title:</u> Internal Stipend <u>Program:</u> Research Stipend 7.5K per year	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$22,500 (\$22,500 received)
2008/7 - 2014/6	University of Ottawa <u>Title:</u> Internal Stipend <u>Program:</u> Research Stipend 2.5K per year	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$15,000 (\$15,000 received)

CONTRIBUTIONS:**Life-time summary count according to the following categories:**

Books Authored.....	3
Refereed Journal Articles	29
Conference Publications.....	140
Refereed Chapters In Books.....	11
Reports	5
Intellectual Properties.....	1
Other Contributions.....	9

PUBLICATIONS:

Books Authored

3. Thompson, JB, Edwards, HM, Lethbridge, TC. (2004, June). *Post-summit Proceedings: International Summit on Software Engineering Education, Co-located with International Conference on Software Engineering, May 2002, Orlando, USA*: University of Sunderland Press.
2. Lethbridge, T., Laganière, R. (2004, January). *Object-Oriented Software Engineering: Practical Software Development using UML and Java* (2 ed.). London, UK: McGraw Hill. Retrieved from <https://www.site.uottawa.ca/school/research/lloseng>
1. Lethbridge, T, Laganière, R. (2001, June). *Object-Oriented Software Engineering: Practical Software Development using UML and Java* (1 ed.). London, UK: Mcgraw-Hill.

Refereed Chapters In Books

11. Lethbridge, TC and *Algablan, A. (2021). Umple: An Executable UML-Based Technology for Agile Model-Driven Development. In Y Rhazali (Ed.), *Advancements in Model-Driven Architecture in Software Engineering* (pp. 1-25). IGI Global. doi:10.4018/978-1-7998-3661-2.ch001
10. Lethbridge, TC. (2015, October). Usable Software Tools: Winding Paths of Involvement in Cascon and CAS. In Litoiu, M., Lyons, K., Müller, H., Ng, J (Eds.), *CAS and CASCON Honouring 25 Years of IBM Research and Innovation* (pp. 85-88). Toronto, Canada: IBM. Retrieved from <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=9fbf4360715582fe56fbcee8b6e4fc831f7ae6b0#page=88>
9. Lethbridge, Timothy C, Lyon, Steve, Perry, Peter. (2008, June). The Management of University - Industry Collaborations Involving Empirical Studies of Software Engineering. In Shull, F., Singer, J, and Sjøberg, D (Eds.), *Guide to Advanced Empirical Software Engineering* (pp. 257-284). Springer London. https://doi.org/10.1007/978-1-84800-044-5_10
8. Singer, J., Sim. S., and Lethbridge, T.C. (2008, June). Software Engineering Data Collection for Field Studies. In Shull, F., Singer, J, and Sjøberg, D (Eds.), *Guide to Advanced Empirical Software Engineering* (pp. 9-34). Springer London. https://doi.org/10.1007/978-1-84800-044-5_1
7. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2007, June). Discovering Relevance Relations in Software Systems Using Data Mining Techniques. In Zhang, D., Tsai, J (Eds.), *Advances in machine learning applications in software engineering* (pp. 168-207). IGI Global. doi:10.4018/978-1-59140-941-1.ch008
6. Atlee, Joanne M, LeBlanc Jr, Richard J, Lethbridge, Timothy C, Sobel, Ann, Thompson, J Barrie. (2006, June). Reflections on Software Engineering 2004, the ACM/IEEE-CS Guidelines for Undergraduate Programs in Software Engineering. *Software Engineering Education in the Modern Age* (Vol. LNCS 4309) (pp. 11-27). Springer Berlin Heidelberg. https://doi.org/10.1007/11949374_2
5. Giese, Holger, Roques, Pascal, Lethbridge, Timothy C. (2006, June). Summary of the Educator's Symposium. *Satellite Events at the MoDELS 2005 Conference* (Vol. LNCS 3844) (pp. 302-305). Springer Berlin Heidelberg. https://doi.org/10.1007/11663430_3
4. Lethbridge, Timothy, Singer, Janice. (2002, June). Studies of the Work Practices of Software Engineers. In Erdogmus, H., Tanir, O (Eds.), *Advances in Software Engineering: Comprehension, Evaluation and Evolution* (pp. 51-72). Springer New York. https://doi.org/10.1007/978-0-387-21599-0_3
3. Lethbridge, Timothy C, Anquetil, Nicolas. (2002, June). Evaluation of Approaches to Clustering for Program Comprehension and Remodularization. In Erdogmus, H., Tanir, O (Eds.), *Advances in Software*

- Engineering: Comprehension, Evaluation and Evolution* (pp. 137-157). Springer New York. https://doi.org/10.1007/978-0-387-21599-0_7
2. Lethbridge, T.C. and Herrera, F. (2002, June). Assessing the Usefulness of the TkSee Software Exploration Tool: A Case Study. In Erdogmus, H., Tanir, O (Eds.), *Advances in Software Engineering: Comprehension, Evaluation and Evolution* (pp. 73-93). Springer New York. https://doi.org/10.1007/978-0-387-21599-0_4
 1. Lethbridge, T.C. and Ware, C. (1990, June). Animation Using Behaviour Functions. In Ichikawa et al (Eds.), *Visual Languages and Applications* (pp. 237-252). Boston: Springer, New York. https://doi.org/10.1007/978-1-4613-0569-9_13

Refereed Journal Articles

29. *Kalantari, R. & Lethbridge, T.C. (2022, November). Characterizing UX Evaluation in Software Modeling Tools: A Literature Review. *IEEE Access*, 10, 131509-131527. <https://doi.org/10.1109/ACCESS.2022.3227504>
28. Lethbridge, T.C., *Forward, A., *Badreddin, O., *Brestovansky, D., *Garzon, M., *Aljamaan, H., . . . *Zakariapour, A. (2021, April). Umple: Model-Driven Development for Open Source and Education. *Science of Computer Programming*, 208, 1-10. <https://doi.org/10.1016/j.scico.2021.102665>
27. Badreddin, O., Rahad, K., Forward, A., and Lethbridge T. (2021). The Evolution of Software Design Practices Over a Decade: A Long-Term Study of Practitioners. *Journal of Object Technology*, 20(2), 1. <https://doi.org/10.5381/jot.2021.20.2.a1>
26. *Husseini, Orabi M, *Husseini, Orabi A & Lethbridge, TC. (2020, January). Umple-TL: A Model-Oriented, Dependency-Free Text Emission Tool. *Communications in Computer and Information Science*, 1161, 127-155. https://doi.org/10.1007/978-3-030-37873-8_6
Extended version of Modelsward Article
25. Agner, L.T.W., Lethbridge, T.C. & Soares, I.W. (2019, September). Student experience with software modeling tools. *Software & Systems Modeling*, 18(5), 3025-3047. <https://doi.org/10.1007/s10270-018-00709-6>
24. *Husseini, Orabi M., *Husseini, Orabi A. & Lethbridge, T.C. (2019, February). A Textual Notation for Modeling and Generating Code for Composite Structure. *Communications in Computer and Information Science*, 991, 355-379. https://doi.org/10.1007/978-3-030-11030-7_16
Extended version of Modelsward Article
23. *Adesina, O, Lethbridge, T.C., Somé, S., *Abdelzad, V. & *Boaye Belle, A. (2018, December). Improving Formal Analysis of State Machines with Particular Emphasis on And-Cross Transitions. *Computer Languages, Systems and Structures*, 54. <https://doi.org/10.1016/j.cl.2017.12.001>
22. *Boaye Belle, A, Lethbridge, T.C., *Garzón, M., *Adesina, O. (2018, April). Design and implementation of distributed expert systems: on a control strategy to manage the execution flow of rule activation. *Expert Systems with Applications*, 96, 129-148. <https://doi.org/10.1016/j.eswa.2017.11.033>
21. *Abdelzad, V. & Lethbridge, T.C. (2015, October). Promoting Traits into Model-Driven Development. *Software and Systems Modeling*, 16(4). <https://doi.org/10.1007/s10270-015-0505-x>
20. *Forward, A, *Badreddin, O, Lethbridge, TC & *Solano, J. (2012, June). Model-driven rapid prototyping with Umple. *Software: Practice and Experience*, 42(7), 781-797. Retrieved from <https://doi.org/10.1002/spe.1155>
19. *Fatolah, A, Somé, SS, Lethbridge, TC. (2012, June). A Meta-Model for Model-Driven Web Development. *International Journal of Software and Informatics*, 6(2), 125-162.

18. *Nojournian, M & Lethbridge, TC. (2011, June). Reengineering PDF-based documents targeting complex software specifications. *Int. J Knowledge and Web Intelligence*, 2(4), 292-319. <https://doi.org/10.1504/IJKWI.2011.045165>
17. *Fatolahi, A, Somé, S, Lethbridge, TC. (2011, June). Model-driven web development for multiple platforms. *Journal of Web Engineering*, 10(2), 109-152. Retrieved from https://www.riverpublishers.com/journal/journal_articles/RP_Journal_1540-9589_1022.pdf
16. *Hamou-Lhadj, A & Lethbridge, TC. (2010, June). A metamodel for the compact but lossless exchange of execution traces. *Software & Systems Modeling*, 11(1), 77-98. <https://doi.org/10.1007/s10270-010-0180-x>
15. *Hamou-Lhadj, A & Lethbridge, TC. (2010, June). Understanding the complexity embedded in large routine call traces with a focus on program comprehension tasks. *IET software*, 4(2), 161-177. <https://doi.org/10.1049/iet-sen.2009.0031>
14. Lethbridge, TC, LeBlanc Jr, RJ, Kelley-Sobel, AE, Hilburn, T B & Diaz-Herrera, TL. (2006, June). SE2004: Recommendations for undergraduate software engineering curricula. *Software, IEEE*, 23(6), 19-25. <https://doi.org/10.1109/MS.2006.171>
13. Lethbridge, TC, Sim, SE & Singer, J. (2005, June). Studying software engineers: Data collection techniques for software field studies. *Empirical software engineering*, 10(3), 311-341. <https://doi.org/10.1007/s10664-005-1290-x>
12. Lethbridge, TC, Singer, J & *Forward, A. (2003, June). How software engineers use documentation: The state of the practice. *Software, IEEE*, 20(6), 35-39. <https://doi.org/10.1109/MS.2003.1241364>
11. *Anquetil, N & Lethbridge, TC. (2003, June). Comparative study of clustering algorithms and abstract representations for software remodularisation. *IEE Proceedings-Software*, 150(3), 185-201. <https://doi.org/10.1049/ip-sen:20030581>
10. *Liu, H & Lethbridge, TC. (2002, June). Intelligent search methods for software maintenance. *Information Systems Frontiers*, 4(4), 409-423. <https://doi.org/10.1023/A:10208398>
9. Lethbridge, TC. (2001, June). Mixing Software Engineering Research and Development-What Needs Ethical Review and What Does Not?. *Empirical Software Engineering*, 6(4), 319-321. <https://doi.org/10.1023/A:10119746>
8. Lethbridge, TC. (2000, June). What knowledge is important to a software professional?. *Computer*, 33(5), 44-50. <https://doi.org/10.1109/2.841783>
7. Lethbridge, TC. (2000, June). Priorities for the education and training of software engineers. *Journal of Systems and Software*, 53(1), 53-71. [https://doi.org/10.1016/S0164-1212\(00\)00009-1](https://doi.org/10.1016/S0164-1212(00)00009-1)
6. Lethbridge, TC. (2000, June). Evaluating a domain-specialist-oriented knowledge management system. *International Journal of Human-Computer Studies*, 52(6), 961-990. <https://doi.org/10.1006/ijhc.1999.0380>
5. *Anquetil, N & Lethbridge, TC. (1999, June). Recovering software architecture from the names of source files. *Journal of Software Maintenance*, 11(3), 201-221. [https://doi.org/10.1002/\(SICI\)1096-908X\(199905/06\)11:3%3C201::AID-SMR192%3E3.0.CO;2-1](https://doi.org/10.1002/(SICI)1096-908X(199905/06)11:3%3C201::AID-SMR192%3E3.0.CO;2-1)
4. Lethbridge, TC. (1998, June). The relevance of software education: A survey and some recommendations. *Annals of Software Engineering*, 6(1-4), 91-110. <https://doi.org/10.1023/A:10189177>
3. Lethbridge, TC. (1998, June). Metrics for concept-oriented knowledge bases. *International Journal of Software Engineering and Knowledge Engineering*, 8(02), 161-188. <https://doi.org/10.1142/S021819409800011X>
2. Skuce, D & Lethbridge, TC. (1995, June). CODE4: A unified system for managing conceptual knowledge. *International Journal of Human-Computer Studies*, 42(4), 413-451. <https://doi.org/10.1006/ijhc.1995.1019>

1. Lethbridge, TC & Ware, C. (1989, June). A simple heuristically-based method for expressive stimulus-response animation. *Computers & Graphics*, 13(3), 297-303. [https://doi.org/10.1016/0097-8493\(89\)90077-0](https://doi.org/10.1016/0097-8493(89)90077-0)

Conference Publications

140. Boaye Belle, A., Hemmati, H. & Lethbridge, T.C. (2023, September). Position paper: a vision for the dynamic safety assurance of ML-enabled autonomous driving systems. In *MoDRE 2023: Model Driven Requirements Engineering* IEEE. <https://doi.org/10.1109/REW57809.2023.00056>
139. *Ayeleso, E., and Lethbridge, T.C. (2022, November). Requirements Analysis Using Grounded Theory: A Case Study in the Domain of Textual Negotiation Tools. In *Cascon* (p. 199-206) ACM. Retrieved from <https://dl.acm.org/doi/abs/10.5555/3566055.3566080>
138. *Singh, L. and Lethbridge, T.C. (2022, November). Safe Cloud-Based Java Code Execution in UmpleOnline. In *Cascon* (p. 207-212) ACM. Retrieved from <https://dl.acm.org/doi/abs/10.5555/3566055.3566081>
137. *Kalantari, R., Lethbridge, T.C. (2022, November). Preliminary results of measuring flow experience in a software modeling tool: UmpleOnline. In *HuFaMO 2022* (p. 923-928) ACM. <https://doi.org/10.1145/3550356.3559099>
136. Lethbridge, T.C. (2021, October). Low-Code Is Often High-Code, So We Must Design Low-Code Platforms to Enable Proper Software Engineering. In *ISoLA 2021: Leveraging Applications of Formal Methods, Verification and Validation* (p. 202-212) Springer. https://doi.org/10.1007/978-3-030-89159-6_14
Research Type: Scientific Research
135. Lethbridge, T, and *Alghamdi, A. (2019). Framework, Model and Tool Use in Higher Education Enterprise Architecture: An International Survey. In *Cascon* (p. 138-147) ACM. Retrieved from <https://dl.acm.org/doi/abs/10.5555/3370272.3370287>
134. *Adesina, O., Lethbridge, T.C., Somé, S. (2019). Optimizing Hierarchical, Concurrent State Machines in Umple for Model Checking. In *16th Workshop on Model Driven Engineering, Verification and Validation (MoDeVVA) 2019* (p. 523-531) IEEE. <https://doi.org/10.1109/MODELS-C.2019.00082>
133. Lethbridge, TC. (2019). UmpleOnline as a Testbed for Modeling Empirical Studies: A Position Paper. In *Fourth International Workshop on Human Factors in Modeling (HuFaMo) 2019* (p. 412-413) IEEE. <https://doi.org/10.1109/MODELS-C.2019.00064>
132. *Boaye Belle, A., Lethbridge, T.C., Kpodjedo, S., Adesina, O., Garzón, M. (2019). A novel approach to measure confidence and uncertainty in assurance cases. In *9th International Model-Driven Requirements Engineering Workshop (MoDRe) 2019* IEEE. <https://doi.org/10.1109/REW.2019.00011>
131. Lethbridge, TC. (2019). Capstone Software Engineering Students Can Develop a High-Quality Complex System: A Case Study With Umple. In *Canadian Engineering Education Association Conference*. <https://doi.org/10.24908/pceea.vi0.13730>
130. *Husseini-Orabi, M., *Husseini-Orabi, A., Lethbridge, TC. (2019). Umple as a Template Language (Umple-TL). In *7th International Conference on Model-Driven Engineering and Software Development, MODELSWARD* INSTCC. <https://doi.org/10.5220/0007382000980106>
129. Badreddin, O., Khandoker, R., Forward, A., Masmali, O., Lethbridge, T.C. (2018). A decade of software design and modeling: A survey to uncover trends of the practice. In *Proceedings of the 21th ACM/IEEE International Conference on Model Driven Engineering Languages and Systems* (p. 245-255). <https://doi.org/10.1145/3239372.3239389>

128. Lethbridge, T.C, *Algablan, A. (2018). Using umple to synergistically process features, variants, UML models and classic code. In *International Symposium on Leveraging Applications of Formal Methods* (p. 69-88) Springer. https://doi.org/10.1007/978-3-030-03418-4_5
127. Lethbridge. T.C. and *Algablan, A. (2018). Applying Umple to the Rover Control Challenge Problem: A Case Study in Model-Driven Engineering. In *MDETools, Models 2018* (p. 386-395) CEUR. Retrieved from https://ceur-ws.org/Vol-2245/mdetools_paper_9.pdf
126. Sturm, A., Lethbridge, TC. (2018). Poster: Are Our Students Engaged in Their Studies? Professional Engagement vs. Study Engagement. In *2018 IEEE/ACM 40th International Conference on Software Engineering: Companion (ICSE-Companion)* (p. 149-150) IEEE. Retrieved from <https://ieeexplore.ieee.org/abstract/document/8449474>
125. *Husseini-Orabi, M., *Husseini-Orabi, A., and Lethbridge, T.C. (2018, January). Component-Based Modeling in Umple. In *Modelsward 2018* (p. 247-255) SCITEPRESS. Retrieved from https://www.researchgate.net/profile/Timothy_Lethbridge/publication/322879081_Component-based_Modeling_in_Umple/links/5a7b01550f7e9b41dbd725f2/Component-based-Modeling-in-Umple.pdf
124. *Husseini-Orabi, M., *Husseini-Orabi, A., and Lethbridge, T.C. (2018, January). Concurrent Programming using Umple. In *Modelsward 2018* (p. 575-585) SCITEPRESS. Retrieved from https://www.researchgate.net/profile/Timothy_Lethbridge/publication/322870960_Concurrent_Programming_using_Umple/links/5a7b01c0aca2722e4df60555/Concurrent-Programming-using-Umple.pdf
123. Lethbridge, T.C., Peyton, L., Amyot, D., Somé, S. (2017, October). The University of Ottawa Undergraduate Software Engineering Program: Leading and Innovative. In *CSEE&T 2017* (p. 5-6) IEEE. <https://doi.org/10.1109/CSEET.2017.12>
122. *Agner, Luciane T. W. and Lethbridge, T.C. (2017, September). A Survey of Tool Use in Modeling Education. In *Models 2017* (p. 303-322) IEEE Computer Society. <https://doi.org/10.1109/MODELS.2017.1>
121. Lima, E., *Resende, A., Lethbridge, TC. (2016, August). The Uncomfortable Discrepancies of Software Metric Thresholds and Reference Values in Literature. In *ICSEA 2016, The Eleventh International Conference on Software Engineering Advances* (p. 1-9). Retrieved from https://www.thinkmind.org/index.php?view=article&articleid=icsea_2016_1_10_10013
120. *Adesina O, Somé, S, Lethbridge TC. (2016). Modeling State Diagrams with And-Cross Transitions. In *MoDeVva 2016, Models 2016* CEUR 1713. Retrieved from https://ceur-ws.org/Vol-1713/MoDeVva_2016_paper_6.pdf
119. *Abdelzad, V, Lethbridge, TC, Hosseini, M. (2016). The role of semiotic engineering in software engineering. In *Proceedings of the 5th International Workshop on Theory-Oriented Software Engineering* (p. 15-21). <https://doi.org/10.1145/2897134.2897136>
118. *Husseini Orabi, A, *Husseini Orabi, M, Lethbridge, TC. (2016). Psychophysiological observing and analysis tool for user experience. In *Proceedings of the 1st International Workshop on Emotion Awareness in Software Engineering* (p. 22-25). <https://doi.org/10.1145/2897000.2897004>
117. *Adesina, O, Lethbridge, TC, Somé, S. (2016). A fully automated approach to discovering non-determinism in state machine diagrams. In *10th International Conference on the Quality of Information and Communications Technology, Portugal*. <https://doi.org/10.1109/QUATIC.2016.021>
116. Lethbridge, TC, *Abdelzad, V, *Husseini Orabi, M, *Husseini Orabi, A, *Adesina, O. (2016). Merging modeling and programming using Umple. In *International Symposium on Leveraging Applications of Formal Methods* (p. 187-197). https://doi.org/10.1007/978-3-319-47169-3_14

115. Badreddin, O., *Abdelzad, V., Lethbridge, TC, Elaasar, M. (2016). fSysML: Foundational Executable SysML for Cyber-Physical System Modeling. In *GEMOC workshop*. Retrieved from https://ceur-ws.org/Vol-1731/paper_3.pdf
114. George, A., Lethbridge, TC., Peyton, L. (2016). Graduate Attribute Assessment In Software Engineering Program At University Of Ottawa – Continual Improvement Process. In *2016 Canadian Engineering Education Conference*. Retrieved from <https://ojs.library.queensu.ca/index.php/PCEEA/article/view/6484/6032>
113. *Husseini Orabi, M., *Husseini Orabi, A., Lethbridge, TC. (2016, January). Umple as a component-based language for the development of real-time and embedded applications. In *Modelsward 2016* (p. 282-291) Scitepress. Retrieved from <https://ieeexplore.ieee.org/abstract/document/7954371>
112. *Aljamaan, H, Lethbridge TC. (2015, November). MOTL: a Textual Language for Trace Specification of State Machines and Associations. In *Proceedings of 25th Annual International Conference on Computer Science and Software Engineering (Cascon)* (p. 101-110) IBM and ACM. Retrieved from <https://dl.acm.org/citation.cfm?id=2886460>
111. *Braun, E., Amyot, D., Lethbridge, TC. (2015, October). Generating Software Documentation in Use Case Maps from Filtered Execution Traces. In *17th International System Design Languages Forum* (p. 177-192) Springer. https://doi.org/10.1007/978-3-319-24912-4_13
Winner of best paper award
110. *Abdelzad, V., Amyot, D., Lethbridge, TC. (2015, October). Adding a Textual Syntax to an Existing Graphical Modeling Language: Experience Report with GRL. In *17th International System Design Languages Forum* (p. 159-174) Springer. https://doi.org/10.1007/978-3-319-24912-4_12
109. Badreddin, O, Sturm, A, Hamou-Lhadj, A., Lethbridge T.C., Dixon, W., Simmons, R. (2015, October). The Effects of Education on Student Perceptions of Modeling in Software Engineering. In *HuFamo Workshop of Models 2015* (p. 39-46) CEUR. Retrieved from <https://ceur-ws.org/Vol-1522/Badreddin2015HuFaMo.pdf>
108. *Aljamaan, H., Lethbridge TC., *Garzon, M. (2015, October). UmpleRun: a Dynamic Analysis Tool for Textually Modeled State Machines using Umple. In *EXE 2015 Workshop at Models 2015* (p. 16-20) CEUR. Retrieved from <https://ceur-ws.org/Vol-1560/paper3.pdf>
107. *Abdelzad, V., Amyot, D., Alwidian, S., Lethbridge, TC. (2015, August). A Textual Syntax with Tool Support for the Goal-oriented Requirement Language. In *International iStar Workshop* (p. 61-66) CEUR. Retrieved from <https://ceur-ws.org/Vol-1402/paper6.pdf>
106. *Garzon, M, *Aljamaan, H, Lethbridge, TC. (2015, June). Umple: A Framework for Model Driven Development of Object-Oriented Systems. In *Software Analysis, Evolution and Reengineering (SANER), 2015 IEEE 22nd International Conference on* (p. 494-498) IEEE. <https://doi.org/10.1109/SANER.2015.7081863>
105. *Garzon, M, Lethbridge, TC, *Aljamaan, H, *Badreddin, O. (2014, June). Reverse Engineering of Object-Oriented Code into Umple using an Incremental and Rule-Based Approach. In *Proceedings of 24th Annual International Conference on Computer Science and Software Engineering (CASCON)* (p. 91-105) IBM Corp and ACM. Retrieved from <https://dl.acm.org/citation.cfm?id=2735534>
104. Lethbridge, Timothy C. (2014, June). Umple: An Open-Source Tool for Easy-To-Use Modeling, Analysis, and Code Generation. In *Models 2014 Demonstrations Track* (p. 5) CEUR. Retrieved from <https://ceur-ws.org/Vol-1255/paper6.pdf>
103. *Badreddin, O, Lethbridge, TC, *Forward, A, Elaasar, M, *Aljamaan, H, *Garzón, M. (2014, June). Enhanced Code Generation from UML Composite State Machines. In *MODELSWARD* (p. 235-245) INSTICC. Retrieved from <https://ieeexplore.ieee.org/abstract/document/7018470>

102. *Badreddin, O, *Forward, A, Lethbridge, TC. (2014, June). A Test-Driven Approach for Developing Software Languages. In *MODELSWARD* (p. 225-234) INSTICC. Retrieved from <https://ieeexplore.ieee.org/abstract/document/7018469>
101. *Badreddin, O, Lethbridge, TC, Forward, A. (2014, June). Investigation and Evaluation of UML Action Languages. In *MODELSWARD* (p. 264-273) INSTICC. Retrieved from <https://ieeexplore.ieee.org/abstract/document/7018473>
100. *Aljamaan, H, Lethbridge, TC, *Badreddin, O, *Guest, G, *Forward, A. (2014, June). Specifying Trace Directives for UML Attributes and State Machines. In *MODELSWARD* (p. 79-86). Retrieved from <https://ieeexplore.ieee.org/abstract/document/7018450>
99. *Abdelzad, V, *Aljamaan, H, *Adesina, O, *Garzon, M Lethbridge, TC. (2014, June). A Model-Driven Solution for Financial Data Representation Expressed in FIXML. In *TTC 2014* (p. 65) CEUR. Retrieved from <https://ceur-ws.org/Vol-1305/paper15.pdf>
98. *Badreddin, O, Sturm, A, Lethbridge, TC. (2014, June). Requirement traceability: A model-based approach. In *Model-Driven Requirements Engineering Workshop (MoDRE), 2014 IEEE 4th International* (p. 87-91) IEEE. <https://doi.org/10.1109/MoDRE.2014.6890829>
97. Lethbridge, TC. (2014, June). Teaching modeling using Umple: Principles for the development of an effective tool. In *Software Engineering Education and Training (CSEE&T), 2014 IEEE 27th Conference on* (p. 23-28) IEEE. <https://doi.org/10.1109/CSEET.2014.6816777>
96. *Badreddin, O, Lethbridge, TC, *Forward, A. (2014, June). A Novel Approach to Versioning and Merging Model and Code Uniformly. In *MODELSWARD* (p. 254-263) INSTICC. Retrieved from <https://ieeexplore.ieee.org/abstract/document/7018472>
95. *Badreddin, O, *Forward, A, Lethbridge, TC. (2014, June). Improving Code Generation for Associations: Enforcing Multiplicity Constraints and Ensuring Referential Integrity. In *Software Engineering Research, Management and Applications* (p. 129-149) Springer International Publishing. Retrieved from https://doi.org/10.1007/978-3-319-00948-3_9
94. *Badreddin, O, Lethbridge, TC, Elassar, M. (2013, June). Modeling Practices in Open Source Software. In *International Conference on Open Source Systems* (p. 127-139) Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-38928-3_9
93. *Badreddin, O, Lethbridge, TC. (2013, June). Model oriented programming: bridging the code-model divide. In *Proceedings of the 5th International Workshop on Modeling in Software Engineering* (p. 69-75). Retrieved from <https://dl.acm.org/citation.cfm?id=2662754>
92. *Badreddin, O, *Forward, A, Lethbridge, TC. (2013, June). Exploring a Model-Oriented and Executable Syntax for UML Attributes. In *Software Engineering Research, Management and Applications* (p. 33-53) Springer International Publishing. Retrieved from https://doi.org/10.1007/978-3-319-00948-3_3
91. Akayama, S, Demuth, B, Lethbridge, TC, Scholz, M, Stevens, P, Stikkolorum, DR. (2013, June). Tool Use in Software Modelling Education. In *EduSymp@ MoDELS* CEUR. Retrieved from <https://ceur-ws.org/Vol-1134/paper6.pdf>
90. Lethbridge, Timothy C. (2013, June). Key Properties for Comparing Modeling Languages and Tools: Usability, Completeness and Scalability. In *Comparing Modeling Approaches* CEUR. Retrieved from <https://ceur-ws.org/Vol-1076/paper3.pdf>
89. *Badreddin, O, Lethbridge, TC. (2012, June). Combining experiments and grounded theory to evaluate a research prototype: Lessons from the umple model-oriented programming technology. In *Proceedings of the First International Workshop on User Evaluation for Software Engineering Researchers* (p. 1-4). <https://doi.org/10.1109/USER.2012.6226575>

88. *Badreddin, O, *Forward, A, Lethbridge, TC. (2012, June). Model oriented programming: an empirical study of comprehension. In *Proceedings of the 2012 Conference of the Center for Advanced Studies on Collaborative Research* (p. 73-86). Retrieved from <https://dl.acm.org/citation.cfm?id=2399784>
87. *Aljamaan, H, Lethbridge, TC. (2012, June). Towards Tracing at the Model Level. In *Reverse Engineering (WCRE), 2012 19th Working Conference on* (p. 495-498). <https://doi.org/10.1109/WCRE.2012.59>
86. *Garzon, M, Lethbridge, TC. (2012, June). Exploring how to Develop Transformations and Tools for Automated Umlification. In *Reverse Engineering (WCRE), 2012 19th Working Conference On* (p. 491-494). <https://doi.org/10.1109/WCRE.2012.58>
85. Mussbacher, G, Alam, O, Alhaj, M, Ali, S, Amálio, N, Barn, B, Braek, R, Clark, T, Combemale, B, Cysneiros, LM, Lethbridge, TC. (2012, June). Assessing composition in modeling approaches. In *Proceedings of the CMA 2012 Workshop*. <https://doi.org/10.1145/2459031.2459032>
84. Lethbridge, TC. (2012, June). A Model of bCMS Using the Umple Model-Oriented Programming Approach. In *Comparing Modeling Approaches*. Retrieved from <https://www.cs.colostate.edu/remodd/v1/sites/default/files/UmpleSubmissionForComparingModelingApproaches-Lethbridge.pdf>
83. *Fatolahi, A., and Somé, S. and Lethbridge, TC. (2011, June). Towards Reusability in Web Modeling Using QVT Relations. In *Webist*.
82. Lethbridge, TC, Mussbacher, G, *Forward, A, *Badreddin, O. (2011, June). Teaching UML using umple: Applying model-oriented programming in the classroom. In *Software Engineering Education and Training (CSEE&T), 2011 24th IEEE-CS Conference on* (p. 421-428). <https://doi.org/10.1109/CSEET.2011.5876118>
81. *Fatolahi, A, Somé, S, Lethbridge, TC. (2010, June). Designing a Map of Mappings: Visualization of QVT Relations using Basic Petri-Nets. In *2nd International Workshop on Future Trends of Model-Driven Development (FTMDD 2010)* (p. 33-45) Springer.
80. *Forward, A, *Badreddin, O, Lethbridge, TC. (2010, June). Perceptions of software modeling: a survey of software practitioners. In *5th workshop from code centric to model centric: evaluating the effectiveness of MDD (C2M: EEMDD)*. Retrieved from https://www.researchgate.net/profile/Andrew_Forward/publication/236953349_Perceptions_of_software_modeling_a_survey_of_software_practitioners/links/0046352978fcc74cf4000000/Perceptions-of-software-modeling-a-survey-of-software-practitioners.pdf
79. *Forward, A, *Badreddin, O, Lethbridge, TC. (2010, June). Umple: Towards combining model driven with prototype driven system development. In *Rapid System Prototyping (RSP), 2010 21st IEEE International Symposium on* (p. 1-7). <https://doi.org/10.1109/RSP.2010.5656338>
78. Lethbridge, TC, *Forward, A, *Badreddin, O. (2010, June). Umlification: Refactoring to incrementally add abstraction to a program. In *Reverse Engineering (WCRE), 2010 17th Working Conference on* (p. 220-224). <https://doi.org/10.1109/WCRE.2010.32>
77. *Fatolahi, A, Somé, SS, Lethbridge, TC. (2010, June). Automated Generation of Use Case Descriptions from Problem Frames. In *Software Engineering Research, Management and Applications (SERA), 2010 Eighth ACIS International Conference on* (p. 223-230). <https://doi.org/10.1109/SERA.2010.36>
76. *Forward, A, Lethbridge, TC, *Brestovansky, D. (2009, June). Improving program comprehension by enhancing program constructs: An analysis of the Umple language. In *ICPC* (p. 311-312). <https://doi.org/10.1109/ICPC.2009.5090073>
75. *Fatolahi, A., and Somé, S. and Lethbridge, T.C. (2008, June). A Model-Driven Approach for the Semi-Automated Generation of Web-based Applications from Requirements. In *SEKE 2008: Conference on Software Engineering and Knowledge Engineering* (p. 619-624) Knowledge Systems Institute. Retrieved

from

https://ecommons.luc.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1036&context=cs_fac_pubs#page=648

74. *Forward, A, Lethbridge, TC. (2008, June). Problems and opportunities for model-centric versus code-centric software development: a survey of software professionals. In *Proceedings of the 2008 international workshop on Models in software engineering* (p. 27-32). <https://doi.org/10.1145/1370731.1370738>
73. *Forward, A, Lethbridge, TC. (2008, June). A taxonomy of software types to facilitate search and evidence-based software engineering. In *Proceedings of the 2008 conference of the center for advanced studies on collaborative research: meeting of minds* (p. 179-191). <https://doi.org/10.1145/1463788.1463807>
72. Fatolahi, Ali, Somé, Stéphane S, Lethbridge, Timothy C. (2008, June). Towards a semi-automated model-driven method for the generation of web-based applications from use cases. In *4th Model Driven Web Engineering Workshop* (p. 31). Retrieved from <https://ceur-ws.org/Vol-389/paper03.pdf>
71. Fatolahi, A. and Somé, S.S, and Lethbridge, T.C. (2007, June). Enterprise Architecture using the Zachman Framework: A Model Driven Approach. In *Information Resources Management Association International Conference*. Retrieved from <https://www.irma-international.org/proceeding-paper/enterprise-architecture-using-zachman-framework/33023>
70. Forward, Andrew, Lethbridge, Timothy, Deugo, Dwight. (2007, June). CodeSnippets Plug-in to Eclipse: Introducing Web 2.0 Tagging to Improve Software Developer Recall. In *Software Engineering Research, Management & Applications, 2007. SERA 2007. 5th ACIS International Conference on* (p. 451-460). <https://doi.org/10.1109/SERA.2007.62>
69. Nojournian, Mehrdad, Lethbridge, Timothy C. (2007, June). Extracting document structure to facilitate a knowledge base creation for the UML superstructure specification. In *Information Technology, 2007. ITNG'07. Fourth International Conference on* (p. 393-400). <https://doi.org/10.1109/ITNG.2007.93>
68. Farah, Hanna, Lethbridge, Timothy C. (2007, June). Temporal exploration of software models: A tool feature to enhance software understanding. In *Reverse Engineering, 2007. WCRE 2007. 14th Working Conference on* (p. 41-49). <https://doi.org/10.1109/WCRE.2007.49>
67. Diaz-Herrera, Jorge, LeBlanc Jr, Richard, Lethbridge, Timothy. (2007, June). Improving software practice through education: Challenges and future trends. In *Future of Software Engineering (FOSE 2007), International Conference on Software Engineering* (p. 12-28) IEEE. <https://doi.org/10.1109/FOSE.2007.13>
66. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy. (2006, June). Summarizing the content of large traces to facilitate the understanding of the behaviour of a software system. In *Program Comprehension, 2006. ICPC 2006. 14th IEEE International Conference on* (p. 181-190). doi:10.1109/ICPC.2006.45
65. Nojournian, Mehrdad, Lethbridge, Timothy C. (2006, June). A new approach for the trust calculation in social networks. In *E-Business and Telecommunication Networks* (p. 257-264) Springer Berlin Heidelberg. doi:10.1007/978-3-540-70760-8_6
64. Murray, A., Lethbridge, T.C. (2005, June). Cognitive Patterns for Program Comprehension: Temporal Details. In *Pattern Languages of Program Design (PLoP)*. Retrieved from http://hillside.net/plop/2005/proceedings/PLoP2005_amurray0_2.pdf
63. Hamou-Lhadj, Abdelwahab, Braun, Edna, Amyot, Daniel, Lethbridge, Timothy. (2005, June). Recovering behavioral design models from execution traces. In *Software Maintenance and Reengineering, 2005. CSMR 2005. Ninth European Conference on* (p. 112-121). doi:10.1109/CSMR.2005.46
62. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2005, June). Measuring various properties of execution traces to help build better trace analysis tools. In *Engineering of Complex Computer Systems, 2005.*

- ICECCS 2005. Proceedings. 10th IEEE International Conference on* (p. 559-568). doi:10.1109/ICECCS.2005.57
61. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C, Fu, Lianjiang. (2005, June). SEAT: A usable trace analysis tool. In *Program Comprehension, 2005. IWPC 2005. Proceedings. 13th International Workshop on* (p. 157-160). doi:10.1109/WPC.2005.30
 60. Atlee, Joanne M, LeBlanc Jr, Richard J, Lethbridge, Timothy C, Sobel, Ann, Thompson, J Barrie. (2005, June). Software engineering 2004: ACM/IEEE-CS guidelines for undergraduate programs in software engineering. In *Proceedings of the 27th international conference on Software engineering* (p. 623-624). doi:10.1145/1062455.1062571
 59. Murray, Adam, Lethbridge, Timothy C. (2005, June). On generating cognitive patterns of software comprehension. In *Proceedings of the 2005 conference of the Centre for Advanced Studies on Collaborative research* (p. 200-211). Retrieved from <https://dl.acm.org/citation.cfm?id=1105649&coll=GUIDE&dl=ACM>
 58. Murray, Adam, Lethbridge, Timothy C. (2005, June). Presenting micro-theories of program comprehension in pattern form. In *Program Comprehension, 2005. IWPC 2005. Proceedings. 13th International Workshop on* (p. 45-54). doi:10.1109/WPC.2005.28
 57. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2004, June). A survey of trace exploration tools and techniques. In *Proceedings of the 2004 conference of the Centre for Advanced Studies on Collaborative research* (p. 42-55). Retrieved from <https://dl.acm.org/citation.cfm?id=1034918&coll=GUIDE&dl=ACM>
 56. Lethbridge, Timothy C, Tichelaar, Sander, Plödereder, Erhard. (2004, June). The dagstuhl middle metamodel: A schema for reverse engineering. In *International Workshop on Meta-Models and Schemas for Reverse Engineering (ateM 2003)* (p. 7-18) Elsevier. doi:10.1016/j.entcs.2004.01.008
 55. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C, Fu, Lianjiang. (2004, June). Challenges and requirements for an effective trace exploration tool. In *Program Comprehension, 2004. Proceedings. 12th IEEE International Workshop on* (p. 70-78). doi:10.1109/WPC.2004.1311049
 54. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2004, June). A metamodel for dynamic information generated from object-oriented systems. In *First International Workshop on Meta-Models and Schemas for Reverse Engineering, ateM* (p. 59-69) Elsevier. doi:10.1016/j.entcs.2004.01.004
 53. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2004, June). Mining the software change repository of a legacy telephony system. In *Proceedings 1st International Workshop on Mining Software Repositories (MSR'04)* (p. 53-57) IEE Press. doi:10.1049/ic:20040476
 52. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2004, June). Reasoning about the Concept of Utilities. In *1st ECOOP Workshop on Practical Problems of Programming in the Large* (p. 10-22) Springer. Retrieved from <https://users.ents.concordia.ca/~abdelw/papers/ECOOP04-Utilities.pdf>
 51. Murray, Adam, Lethbridge, Timothy C. (2004, June). A brief summary of cognitive patterns for program comprehension. In *2013 20th Working Conference on Reverse Engineering (WCRE)* (p. 304-305). doi:10.1109/WCRE.2004.5
 50. Lethbridge, Timothy C. (2004, June). Value assessment by potential tool adopters: towards a model that considers costs, benefits and risks of adoption. In *4th International Workshop on Adoption-Centric Software Engineering (ACSE'04)* (p. 46-50). doi:10.1049/ic:20040248
 49. Shirabad, Jelber Sayyad, Matwin, Stan, Lethbridge, Timothy C. (2004, June). Predictive software models. In *Software Technology and Engineering Practice, 2004. STEP 2004. The 12th International Workshop on* (p. 10-pp). doi:10.1109/STEP.2004.14

48. Williams, J.C. and Bair, B. and Lethbridge, T.C. and Börstler, J, and Surandran, K. (2003, June). Client Sponsored Projects in Software Engineering Courses. In *SIGCSE* (p. 401-402) ACM. doi:10.1145/792548.611893
47. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2003, June). Mining the maintenance history of a legacy software system. In *Software Maintenance, 2003. ICSM 2003. Proceedings. International Conference on* (p. 95-104). doi:10.1109/ICSM.2003.1235410
46. Hayes, Jane Huffman, Lethbridge, Timothy C, Port, Daniel. (2003, June). Evaluating individual contribution toward group software engineering projects. In *Proceedings of the 25th International Conference on Software Engineering* (p. 622-627). doi:10.1109/ICSE.2003.1201246
45. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2003, June). An efficient algorithm for detecting patterns in traces of procedure calls. In *ICSE WODA 2003 ICSE Workshop on Dynamic Analysis* (p. 33-36). Retrieved from <https://users.encs.concordia.ca/~abdelw/papers/WODA03-HamouLhadjPatternDetection.pdf>
44. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2003, June). Techniques for reducing the complexity of object-oriented execution traces. In *2nd IEEE international workshop on visualizing software for understanding and analysis* (p. 35-40). Retrieved from <https://users.encs.concordia.ca/home/a/abdelw/papers/VISSOFT03-OOCComplexity.pdf>
43. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2003, June). Applying data mining to software maintenance records. In *Proceedings of the 2003 conference of the Centre for Advanced Studies on Collaborative research* (p. 253-265). Retrieved from <https://dl.acm.org/citation.cfm?id=961361&coll=GUIDE&dl=ACM>
42. Murray, Adam, Michaud, Jeff, Lethbridge, Timothy C. (2003, June). An Authoring Framework for Live Documents: Collaborative Writing with Infinite Persistent Annotated Change Tracking (ImPACT). In *3rd International Workshop on Adoption-Centric Software Engineering* (p. 55-58). Retrieved from https://www.researchgate.net/profile/S_Rifkin/publication/237135724_Two_good_reasons_why_new_software_processes_are_not_adopted/links/550b42a20cf2855640970494/Two-good-reasons-why-new-software-processes-are-not-adopted.pdf#page=63
41. Forward, Andrew, Lethbridge, Timothy C. (2002, June). The relevance of software documentation, tools and technologies: a survey. In *Proceedings of the 2002 ACM symposium on Document engineering* (p. 26-33). doi:10.1145/585058.585065
40. Hamou-Lhadj, Abdelwahab, Lethbridge, Timothy C. (2002, June). Compression techniques to simplify the analysis of large execution traces. In *Program Comprehension, 2002. Proceedings. 10th International Workshop on* (p. 159-168). doi:10.1109/WPC.2002.1021337
39. Bourque, Pierre, Robert, François, Lavoie, Jean-Marc, Lee, Ansik, Trudel, Sylvie, Lethbridge, Timothy C. (2002, June). Guide to the software engineering body of knowledge (SEWBOK) and the software engineering education knowledge (SEEK)-a preliminary mapping. In *Software Technology and Engineering Practice, 2002. STEP 2002. Proceedings. 10th International Workshop on* (p. 8-23).
38. Somé, Stéphane S, Lethbridge, Timothy C. (2002, June). Enhancing program comprehension with recovered state models. In *Program Comprehension, 2002. Proceedings. 10th International Workshop on* (p. 85-93). doi:10.1109/WPC.2002.1021325
37. Bagert, Donald J, Barbacci, Mario, Budgen, David, Lethbridge, Timothy C, Suryan, Witold, van Vliet, Hans. (2002, June). Thoughts on Software Engineering Knowledge, and how to Organize it. In *Software Technology and Engineering Practice, 2002. STEP 2002. Proceedings. 10th International Workshop on* (p. 24-35). doi:10.1109/STEP.2002.1267596

36. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2001, June). Supporting software maintenance by mining software update records. In *Software Maintenance, 2001. Proceedings. IEEE International Conference on* (p. 22-31). doi:10.1109/ICSM.2001.972708
35. Zayour, Iyad, Lethbridge, Timothy C. (2001, June). Adoption of reverse engineering tools: a cognitive perspective and methodology. In *Program Comprehension, 2001. IWPC 2001. Proceedings. 9th International Workshop on* (p. 245-255). doi:10.1109/WPC.2001.921735
34. Liu, Huixiang, Lethbridge, Timothy C. (2001, June). Intelligent search techniques for large software systems. In *Proceedings of the 2001 conference of the Centre for Advanced Studies on Collaborative research* (p. 40-54). Retrieved from <https://dl.acm.org/citation.cfm?id=782106&coll=GUIDE&dl=ACM>
33. Shirabad, Jelber Sayyad, Lethbridge, Timothy C, Matwin, Stan. (2000, June). Supporting maintenance of legacy software with data mining techniques. In *Proceedings of the 2000 conference of the Centre for Advanced Studies on Collaborative research* (p. 137-151). Retrieved from <https://dl.acm.org/citation.cfm?id=782045>
32. Lethbridge, Timothy C. (2000, June). Integrated Personal Work Management in TKSee Software Exploration Tool. In *2nd Int. Symp. on Constructing Software Engineering Tools (CoSET'2000)* (p. 31-38). Retrieved from <https://bit.ly/33Y6ohk>
31. Zayour, Iyad, Lethbridge, Timothy C. (2000, June). A cognitive and user centric based approach for reverse engineering tool design. In *Proceedings of the 2000 conference of the Centre for Advanced Studies on Collaborative research (CASCON)* (p. 16-30). Retrieved from <https://dl.acm.org/citation.cfm?id=782050>
30. Anquetil, Nicolas, Lethbridge, Timothy C. (1999, June). Experiments with clustering as a software remodularization method. In *Reverse Engineering, 1999. Proceedings. Sixth Working Conference on* (p. 235-255). doi:10.1109/WCRE.1999.806964
29. Singer, J, Lethbridge, T.C. (1998, June). Just-in-Time-Comprehension vs. the Full-coverage Strategy. In *Workshop on Empirical Studies of Software (WESS)*. Retrieved from <http://www.site.uottawa.ca/~tcl/papers/WESS/WESS98SingerLethbridge.pdf>
28. Anquetil, Nicolas, Lethbridge, Timothy. (1998, June). Extracting concepts from file names: a new file clustering criterion. In *Proceedings of the 20th international conference on Software engineering* (p. 84-93). doi:10.1109/ICSE.1998.671105
27. Anquetil, Nicolas, Lethbridge, Timothy. (1998, June). Assessing the relevance of identifier names in a legacy software system. In *Proceedings of the 1998 conference of the Centre for Advanced Studies on Collaborative Research (Cascon)* (p. 213-222). Retrieved from <http://www.csi.uottawa.ca/~tcl/papers/Cascon/Cascon98Nicolas.pdf>
26. Singer, Janice, Lethbridge, Timothy C, Vinson, Norman. (1998, June). Studying work practices to assist tool design in software engineering. In *Proceedings of International Workshop on Program Comprehension, Italy* (p. 173-179). doi:10.1109/WPC.1998.693348
25. Lethbridge, Timothy C. (1998, June). A survey of the relevance of computer science and software engineering education. In *Software Engineering Education, 1998. Proceedings., 11th Conference on* (p. 56-66). doi:10.1109/CSEE.1998.658300
24. Somé, Stéphane S, Lethbridge, Timothy C. (1998, June). Parsing minimization when extracting information from code in the presence of conditional compilation. In *Program Comprehension, 1998. IWPC'98. Proceedings., 6th International Workshop on* (p. 118-125). doi:10.1109/WPC.1998.693328
23. Lethbridge, TC, Probert, RL, Raymond, J, Gibbons, D, Ionescu, D, Orozco-Barbosa, L, Szpakowicz, S. (1998, June). The University of Ottawa's Software Engineering Program: Curriculum Design Issues for a New Subdiscipline. In *Canadian Conference on Engineering Education, Halifax* (p. 551-560) Citeseer. Retrieved from <http://www.site.uottawa.ca/~tcl/papers/ccece/C2E298Lethbridge.pdf>

22. Singer, Janice, Lethbridge, Timothy, Vinson, Norman, Anquetil, Nicolas. (1997, June). An examination of software engineering work practices. In *CASCON* (p. 209-223). doi:10.1145/1925805.1925815
Reprinted in 2010 in *CASCON First Decade High Impact Papers Pages 174-188*
21. Anquetil, Nicolas, Lethbridge, Timothy. (1997, June). File clustering using naming conventions for legacy systems. In *Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research (CASCON)* (p. 184-195). Retrieved from <http://portal.acm.org/citation.cfm?id=782012>
20. Lethbridge, Timothy C, Singer, Janice. (1997, June). Understanding software maintenance tools: Some empirical research. In *Proceedings of the 1997 IEEE Workshop on Empirical Studies of Software Maintenance (WESS 97)* (p. 157-162). Retrieved from <http://www.site.uottawa.ca/~tcl/papers/WESS/WESS97Lethbridge.html>
19. Sayyad-Shirabad, Jelber, Lethbridge, Timothy C, Lyon, Steve. (1997, June). A little knowledge can go a long way towards program understanding. In *Program Comprehension, 1997. IWPC'97. Proceedings., Fifth International Workshop on* (p. 111-117). doi:10.1109/WPC.1997.601275
18. Lethbridge, Timothy C, Ionescu, Dan, Mili, Ali, Gibbons, David. (1997, June). An undergraduate option in software engineering: analysis and rationale. In *Software Engineering Education & Training. Tenth Conference on* (p. 120-129). doi:10.1109/SEDC.1997.592447
17. Singer, Janice, Lethbridge, Timothy C. (1996, June). Methods for studying maintenance activities. In *1st International Workshop on Empirical Studies of Software Maintenance* (p. 105-110) Fraunhofer Institute for Experimental Software Engineering. Retrieved from <http://www.site.uottawa.ca/~tcl/papers/WESS/WESS96Singer.html>
16. Lethbridge, Timothy C, Singer, Janice. (1996, June). Strategies for studying maintenance. In *Workshop on Empirical Studies of Software Maintenance* (p. 79-84) Fraunhofer Institute for Experimental Software Engineering. Retrieved from <http://www.site.uottawa.ca/~tcl/papers/WESS/WESS96Lethbridge.html>
15. Bowker, L., Lethbridge, T.C. (1994, June). Terminology and Faceted Classification: Applications Using CODE4. In *Advances in Knowledge Organization (Third ISKO Conference)* (p. 200-207).
14. Lethbridge, Timothy C, Skuce, Doug. (1994, June). Knowledge base metrics and informality: User studies with code4. In *Proc. 8th Knowledge Acquisition for Knowledge-Based Systems Workshop* (p. 10.1 - 10.19). Retrieved from <http://www.csi.uottawa.ca/~tcl/papers/km/KnowledgeBaseMetrics.pdf>
13. Skuce, Doug, Lethbridge, T. (1994, June). CODE4: A multifunctional knowledge management system. In *8th Knowledge Acquisition for Knowledge-Based Systems Workshop* (p. 12.1 - 12.21). Retrieved from <http://www.site.uottawa.ca/~tcl/papers/km/CODE4AMultifunctional.html>
12. Bowker, L & Lethbridge, TC. (1994, June). CODE4: applications for managing classification schemes. In *5th ASIS SIC/CR Classification Research Conference* (p. 17-32). Retrieved from https://www.researchgate.net/profile/Timothy_Lethbridge/publication/268366614_CODE4_Applications_for_Managing_Classification_Schemes/links/54bed2120cf28ad7e7195c1b/CODE4-Applications-for-Managing-Classification-Schemes.pdf
11. Bradshaw, Jeffrey M, Holm, Peter D, Boose, John H, Skuce, Douglas, Lethbridge, Timothy C. (1992, June). Sharable ontologies as a basis for communication and collaboration in conceptual modeling. In *7th Knowledge Acquisition for Knowledge-based Systems Workshop* (p. 3.1-3.25). Retrieved from <http://www.jeffreybradshaw.net/publications/KAW-92-Shared%20ont.pdf>
10. Lethbridge, Timothy C, Skuce, Doug. (1992, June). Informality in knowledge exchange. In *AAAI-92 Workshop on Knowledge Representation Aspects of Knowledge Acquisition* (p. 93-99). Retrieved from <https://pdfs.semanticscholar.org/79e2/f6fa26508800d837336dd3860b25e63ef499.pdf>

9. Bradshaw, Jeffrey M, Boose, John H, Shema, David B, Skuce, Douglas, Lethbridge, Timothy C. (1992, June). Steps toward sharable ontologies for design rationale. In *AAAI-92 Design Rationale Capture and Use Workshop* (p. 29-38). Retrieved from <http://www.site.uottawa.ca/~tcl/papers/km/StepsToward.pdf>
8. Lethbridge, Timothy C, Skuce, Doug. (1992, June). Integrating techniques for conceptual modeling. In *Proceedings of the Seventh Banff Annual Knowledge Acquisition for Knowledge-Based Systems Workshop* (p. 15.1-15.20). Retrieved from <http://www.site.uottawa.ca/~tcl/papers/km/IntegratingTechniques.pdf>
7. Lethbridge, Timothy C, Skuce, Doug. (1992, June). Beyond hypertext: knowledge management for technical documentation. In *Proceedings of the 10th annual international conference on Systems documentation* (p. 313-322). doi:10.1145/147001.147056
6. Lethbridge, Timothy C. (1991, June). Creative knowledge acquisition: An analysis. In *Proceedings of the 6th 1991 Banff Knowledge Acquisition for Knowledge-Based Systems Workshop* (p. 12.1-12.20). Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.194.9129&rep=rep1&type=pdf>
5. Lethbridge, Timothy C. (1991, June). A model for informality in knowledge representation and acquisition (an extended abstract). In *DARPA Workshop on Informal Computing* (p. 175-177). Retrieved from <http://www.site.uottawa.ca/~tcl/papers/km/AModelForInformality.html>
4. Lethbridge, TC, Ware, Colin. (1987, June). Animation Using Behaviour Functions. In *Workshop on Visual languages*.
3. Shahandashti, K.K., Sivakumar, M., Mohajer, M.M., Belle, A., Wang, S., Lethbridge, T.C. (2024, April). Assessing the Impact of GPT-4 Turbo in Generating Defeaters for Assurance Cases. In *AI Foundation Models and Software Engineering (FORGE 2024) in ICSE 2024 IEEE*.
2. Lethbridge, T.C. (2024, April). TAMVE: Properties of Design Technologies to Address Challenges to Software Design in the Era of Agility and Frameworks. In *Designing 2024 at ICSE 2024 IEEE*.
1. *Kalantari, R and Lethbridge, T.C. (2023, October). Unveiling Developers' Mindset Barriers to Software Modeling Adoption. In *HuFaMo at Models 2023* (p. 737-746) IEEE. <https://doi.org/10.1109/MODELS-C59198.2023.00120>

Reports

5. Shahandashti, K.K., Belle, A.B., Lethbridge, T.C., Odua, O., and Sivakumara, M. (2023, November). *PRISMA-driven systematic mapping study on system assurance weakeners*. Retrieved from <https://arxiv.org/pdf/2311.08328.pdf>
4. *Fatolahi, A, Somé, SS, Lethbridge, TC. (2010, June 15). *Automated Generation of Abstract Web Models using QVT Relations* (p. 52). Retrieved from <https://www.site.uottawa.ca/eng/school/publications/techrep/2010/TR-2010-06.pdf>
3. *Anquetil, N, Lethbridge, TC. (1998, June 15). *Design Quality of Subsystems Extracted from File Names* (p. 10). Retrieved from <https://www.site.uottawa.ca/~tcl/papers/WCRE/WCRE98.pdf>
2. Lethbridge, TC, *Anquetil, N. (1997, June 15). *Architecture of a source code exploration tool: A software engineering case study* (p. 15). Retrieved from <https://www.site.uottawa.ca/~tcl/papers/Cascon/TR-97-07.pdf>
1. Nash, J, Lethbridge, TC. (1997, June 15). *A synchronous teamwork approach to software development* (p. 6). Retrieved from <https://www.site.uottawa.ca/~tcl/papers/nash/NashOriginal.pdf>

PRESENTATIONS:

4. Keynote Address. (2019, June). "Model-Based Systems Engineering: Some Messages for Digital Transformation in Government". Local Digital Transformation in Government Conference, ISACA and Association of Enterprise Architects, Ottawa, Canada.
Research Type: Scientific Research
3. Keynote Address. (2018, February). "Teaching Effective UML Modeling by Combining it with Programming". National 6th Kinneret Conference on Software Engineering Education, Kinneret, Israel. Retrieved from <http://www.site.uottawa.ca/~tcl/presentations/KinneretUmpleKeynote.pptx>
Research Type: Scientific Research
2. Lecture. (2018, February). "Practical Model-Based Programming: When Agile and Modeling Meet". National ITLAM, 2-day mini-course, Herzlia, Israel. Retrieved from <http://www.site.uottawa.ca/~tcl/presentations/AgileAndModelingMeetWithUmple.pptx>
Research Type: Scientific Research
1. Lecture. (2017, June). "The Benefits of Text-Diagram Duality in Modeling". Local Modeling Day, Ben-Gurion University of the Negev, Beer Sheva, Israel.
Research Type: Scientific Research

INTELLECTUAL PROPERTIES:

Patents

1. Farah, H.*, Antkiewicz, M., Mindel, M.; Murray, A.*. Lethbridge, T.C. (2016, May). Systems, Method and Computer Program Products for Tracking and Viewing Changes to Information Stored in a Data Structure Patent No. 9348581. Retrieved from <https://patentimages.storage.googleapis.com/23/19/2d/917399f9e991fc/US9348581.pdf>
Core feature enabling real-time reviewing of software models to understand their evolution

OTHER CONTRIBUTIONS:

Online Resources

2. Timothy C. Lethbridge et al. (2021, April). *Umple: Model-Oriented Programming Software Release*. <https://doi.org/10.5281/zenodo.4677562>
1. (2008, July 1). *Umple Online*. Retrieved from <https://try.umple.org>

Manuals

1. Lethbridge, T.C. (2021, April). *Umple User Manual*. uO Research, pp. 526. Ottawa: University of Ottawa. <https://doi.org/10393/42044>

Dissertations

2. (1994, June 15). *Practical techniques for organizing and measuring knowledge*. University of Ottawa, Canada, Ontario. Retrieved from <https://www.eecs.uottawa.ca/~tcl/thesis.pdf>
1. (1987, June 15). *Perceived animate motion by simple deterministic rules of inter-object behaviour*. University of New Brunswick. Retrieved from <https://www.site.uottawa.ca/~tcl/personal/LethbridgeMastersThesisAnimateMotionBehaviourFunctions1987UNBcmp.pdf>

Software

1. Umple. (n.d.). University of Ottawa. Retrieved from <http://www.umple.org>
Research Type: Scientific Research
A compiler that combines UML class diagrams, state diagrams, traits, mixins and other techniques into Java, PHP, C++ and other languages. Includes an online website, a command-line tool, plugins for IDEs and extensive manual. Used widely for education in universities around the world

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